

Association between class 1 integrons and multidrug resistance pattern among *Enterobacter* spp. isolated from Qazvin and Tehran teaching hospitals

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*Abstract

Background: Multi-drug resistant (MDR) *Enterobacter* spp. containing class 1 integrons are considered as one of the major concerns of clinicians and infection control specialists.

Objective: The aim of this study was to determine the association between class 1 integrons and the multidrug resistance pattern among *Enterobacter* spp.

Methods: In this analytical study, antimicrobial susceptibility pattern were determined among 137 isolates of *Enterobacter* from Qazvin and Tehran hospitals during May 2011-September 2012. Then all isolates were screened for class 1 integrons using PCR assay. Data were analyzed using chi-square test and Fisher's exact test.

Findings: The MDR pattern was found in 83 isolates (61%) and class 1 integrons were detected in 52 (63%) of these isolates. There was a significant association between the presence of class 1 integrons and the MDR pattern.

Conclusion: With regards to the results, use of proper equipment for infection control and appropriate treatment strategies are necessary.

Keywords: *Enterobacter*, Integrons, Multiple Drug Resistance, Infection

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